

Supplemental Online Content

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This supplemental material has been provided by the authors to give readers additional information about their work.

eTable 1: One-way Sensitivity Analysis for Single-Joint Contracture From Societal Perspective of the Preferred Treatment Strategy†

	MCP Joint Low Severity Contracture						MCP Joint High Severity Contracture						PIP Joint Low Severity Contracture						PIP Joint High Severity Contracture								
	Low			High			Low			High			Low			High			Low			High					
	50	100	150	50	100	150	50	100	150	50	100	150	50	100	150	50	100	150	50	100	150	50	100	150			
Willingness to Pay (1000's \$)	50	100	150	50	100	150	50	100	150	50	100	150	50	100	150	50	100	150	50	100	150	50	100	150	50	100	150
Age	26	26	26	26	26	26	26	24	27	26	27	27	26	26	26	26	26	24	26	26	26	26	26	26			
Probability of Death	26	26	26	26	26	26	26	24	27	26	24	27	26	26	26	26	26	26	26	26	26	26	26	26			
Transition Probabilities																											
CCH Success	26	26	26	26	26	26	26	24	27	26	24	27	26	26	26	26	26	26	26	26	26	26	26	26			
CCH Recurrence	26	26	26	26	26	26	26	24	27	26	24	27	26	26	26	26	26	26	26	26	26	26	26	26			
PNA Success	26	26	26	26	26	26	26	27	27	26	26	27	26	26	26	26	26	26	26	26	26	26	26	26			
PNA Recurrence	26	26	26	26	26	26	26	26	27	26	27	27	26	26	26	26	26	26	26	26	26	26	26	26			
LF Success	26	26	26	26	26	26	26	26	27	26	27	27	26	26	26	26	26	26	26	26	26	26	26	26			
LF Recurrence	26	26	26	26	26	26	26	27	27	26	26	27	26	26	26	26	26	26	26	26	26	26	26	26			
Direct Cost																											
CCH clinic visit	26	26	26	26	26	26	26	24	27	26	24	27	26	26	26	26	26	26	26	26	26	26	26	26			
CCH medication	26	26	26	26	26	26	26	24	27	26	24	27	26	26	26	26	26	26	26	26	26	26	26	26			
CCH manipulation visit	26	26	26	26	26	26	26	24	27	26	24	27	26	26	26	26	26	26	26	26	26	26	26	26			
CCH hand therapy	26	26	26	26	26	26	26	24	27	26	24	27	26	26	26	26	26	26	26	26	26	26	26	26			
PNA procedure	26	26	26	26	26	26	26	24	27	26	24	27	26	26	26	26	26	26	26	26	26	26	26	26			
PNA hand therapy	26	26	26	26	26	26	26	24	27	26	24	27	26	26	26	26	26	26	26	26	26	26	26	26			
LF procedure	26	26	26	26	26	26	26	24	27	26	24	27	26	26	26	26	26	26	26	26	26	26	26	26			
LF anesthesia	26	26	26	26	26	26	26	24	27	26	24	27	26	26	26	26	26	26	26	26	26	26	26	26			
LF facility fee	26	26	26	26	26	26	26	27	27	26	24	27	26	26	26	26	26	26	26	26	26	26	26	26			
LF hand therapy	26	26	26	26	26	26	26	24	27	26	24	27	26	26	26	26	26	26	26	26	26	26	26	26			
Indirect Cost																											
CCH days off work	26	26	26	26	26	26	26	24	27	26	24	27	26	26	26	26	26	26	26	26	26	26	26	26			
PNA days off work	26	26	26	26	26	26	26	24	27	26	27	27	26	26	26	26	26	26	26	26	26	26	26	26			
LF days off work	26	26	11	26	26	26	26	27	27	26	26	27	26	26	26	26	26	26	26	26	26	26	26	26			
Complication Cost																											
Tendon injury	26	26	26	26	26	26	26	24	27	26	24	27	26	26	26	26	26	26	26	26	26	26	26	26			
Admission	26	26	26	26	26	26	26	24	27	26	24	27	26	26	26	26	26	26	26	26	26	26	26	26			
Medication allergy	26	26	26	26	26	26	26	24	27	26	24	27	26	26	26	26	26	26	26	26	26	26	26	26			
Skin tear	26	26	26	26	26	26	26	24	27	26	24	27	26	26	26	26	26	26	26	26	26	26	26	26			
Infection	26	26	26	26	26	26	26	24	27	26	24	27	26	26	26	26	26	26	26	26	26	26	26	26			

CRPS	26	26	26	26	26	26	26	24	27	26	24	27	26	26	26	26	26	26	26	26	26	26	26	26
Nerve injury	26	26	26	26	26	26	26	24	27	26	24	27	26	26	26	26	26	26	26	26	26	26	26	26
Artery injury	26	26	26	26	26	26	26	24	27	26	24	27	26	26	26	26	26	26	26	26	26	26	26	26
Hematoma	26	26	26	26	26	26	26	24	27	26	24	27	26	26	26	26	26	26	26	26	26	26	26	26
Complication Rate																								
Tendon (CCH)	26	26	26	26	26	26	26	24	27	26	24	27	26	26	26	26	26	26	26	26	26	26	26	26
Admission (CCH)	26	26	26	26	26	26	26	24	27	26	24	27	26	26	26	26	26	26	26	26	26	26	26	26
Allergy (CCH)	26	26	26	26	26	26	26	24	27	26	24	27	26	26	26	26	26	26	26	26	26	26	26	26
Skintear (CCH)	26	26	26	26	26	26	26	24	27	26	24	27	26	26	26	26	26	26	26	26	26	26	26	26
Tendon (PNA)	26	26	26	26	26	26	26	24	27	26	24	27	26	26	26	26	26	26	26	26	26	26	26	26
Infection (PNA)	26	26	26	26	26	26	26	24	27	26	24	27	26	26	26	26	26	26	26	26	26	26	26	26
CRPS (PNA)	26	26	26	26	26	26	26	24	27	26	24	27	26	26	26	26	26	26	26	26	26	26	26	26
Nerve injury (PNA)	26	26	26	26	26	26	26	24	27	26	24	27	26	26	26	26	26	26	26	26	26	26	26	26
Artery injury (PNA)	26	26	26	26	26	26	26	24	27	26	24	27	26	26	26	26	26	26	26	26	26	26	26	26
Tendon (LF)	26	26	26	26	26	26	26	24	27	26	24	27	26	26	26	26	26	26	26	26	26	26	26	26
Admission (LF)	26	26	26	26	26	26	26	24	27	26	24	27	26	26	26	26	26	26	26	26	26	26	26	26
Infection (LF)	26	26	26	26	26	26	26	24	27	26	24	27	26	26	26	26	26	26	26	26	26	26	26	26
Nerve injury (LF)	26	26	26	26	26	26	26	24	27	26	24	27	26	26	26	26	26	26	26	26	26	26	26	26
Artery injury (LF)	26	26	26	26	26	26	26	24	27	26	24	27	26	26	26	26	26	26	26	26	26	26	26	26
Hematoma (LF)	26	26	26	26	26	26	26	24	27	26	24	27	26	26	26	26	26	26	26	26	26	26	26	26
Utility (Disease state)	26	11	27	26	26	26	26	27	27	26	26	26	26	24	27	26	26	26	26	26	26	26	26	26

† Treatment Types: 11 (PNA→PNA→LF), 26 (PNA→PNA→PNA), 24 (PNA→LF→LF), 27 (LF→LF→LF)

eTable 2: Quality-Adjusted Life-Year and Incremental Cost-Effectiveness Ratio for Single-Joint Contracture from Health-Sector Perspective

Joint Type and Severity	Treatment Combination ¹	Average Total Cost (SD [†]), \$	Average Lifetime QALYs ² (SD [†])	ICER ³ (MCSE [‡]),\$/QALY
MCP Joint Low	PNA→PNA→PNA	2,955 (454)	15.09 (4.95)	
	PNA→PNA→LF	6,232 (1,523)	15.12 (4.97)	114,062 (11,000)
	LF→LF→LF	13,345 (2,732)	15.17 (4.98)	130,753 (18,000)
MCP Joint High	PNA→PNA→PNA	3,076 (378)	14.64 (4.80)	
	PNA→PNA→LF	6,660 (1,276)	14.72 (4.83)	43,635 (4,500)
	LF→LF→LF	13,647 (2,641)	14.88 (4.87)	45,034 (9,000)
PIP Joint Low	PNA→PNA→PNA	3,113 (329)	15.03 (4.95)	
	PNA→PNA→LF	6,788 (1,115)	15.06 (4.95)	117,877 (8,000)
	LF→LF→LF	14,114 (2,316)	15.12 (4.97)	119,422 (22,000)
PIP Joint High	PNA→PNA→PNA	3,164 (280)	14.59 (4.80)	
	PNA→PNA→LF	6,968 (956)	14.62 (4.80)	179,610 (7,000)
	LF→LF→LF	14,972 (1,741)	14.66 (4.82)	173,193 (7,500)
¹ PNA: Percutaneous Needle Aponeurotomy; LF: Limited Fasciectomy; CCH: Collagenase Clostridium Histolyticum				
² QALY: Quality-Adjusted Life Years				
³ ICER: Incremental Cost-Effectiveness Ratio; ICER compared to next best treatment combination with highest net monetary benefit				
[†] SD: Standard Deviation				
[‡] MCSE: Monte Carlo Standard Error				

eTable 3: Quality-Adjusted Life-Year and Incremental Cost-Effectiveness Ratio for 2-Joint Contracture from Societal Perspective

Joint Type and Severity	Treatment Combination ¹	Average Total Cost (SD [†]), \$	Average Lifetime QALYs ² (SD [†])	ICER ³ (MCSE [‡]),\$/QALY
MCP Joint Low	PNA→PNA→PNA	3,339 (544)	14.82 (4.85)	
	PNA→PNA→LF	9,700 (4,070)	14.87 (4.87)	120,999 (36,000)
	LF→LF→LF	26,235 (6,926)	14.97 (4.90)	166,081 (24,500)
MCP Joint High	PNA→PNA→PNA	3,512 (462)	13.98 (4.57)	
	PNA→PNA→LF	11,501 (3,711)	14.13 (4.61)	52,581 (6,600)
	LF→LF→LF	27,360 (7,016)	14.42 (4.70)	55,241 (13,500)
PIP Joint Low	PNA→PNA→PNA	3,567 (399)	14.59 (4.78)	
	PNA→PNA→LF	12,072 (3,267)	14.65 (4.80)	127,131 (14,500)
	LF→LF→LF	28,802 (6,583)	14.79 (4.83)	127,102 (21,667)
PIP Joint High	PNA→PNA→PNA	3,640 (338)	13.63 (4.47)	
	PNA→PNA→LF	12,867 (2,694)	13.67 (4.48)	200,653 (12,000)
	LF→LF→LF	32,386 (5,398)	13.78 (4.52)	194,195 (17,333)
¹ PNA: Percutaneous Needle Aponeurotomy; LF: Limited Fasciectomy; CCH: Collagenase Clostridium Histolyticum				
² QALY: Quality-Adjusted Life Years				
³ ICER: Incremental Cost-Effectiveness Ratio; ICER compared to next best treatment combination with highest net monetary benefit				
[†] SD: Standard Deviation				
[‡] MCSE: Monte Carlo Standard Error				

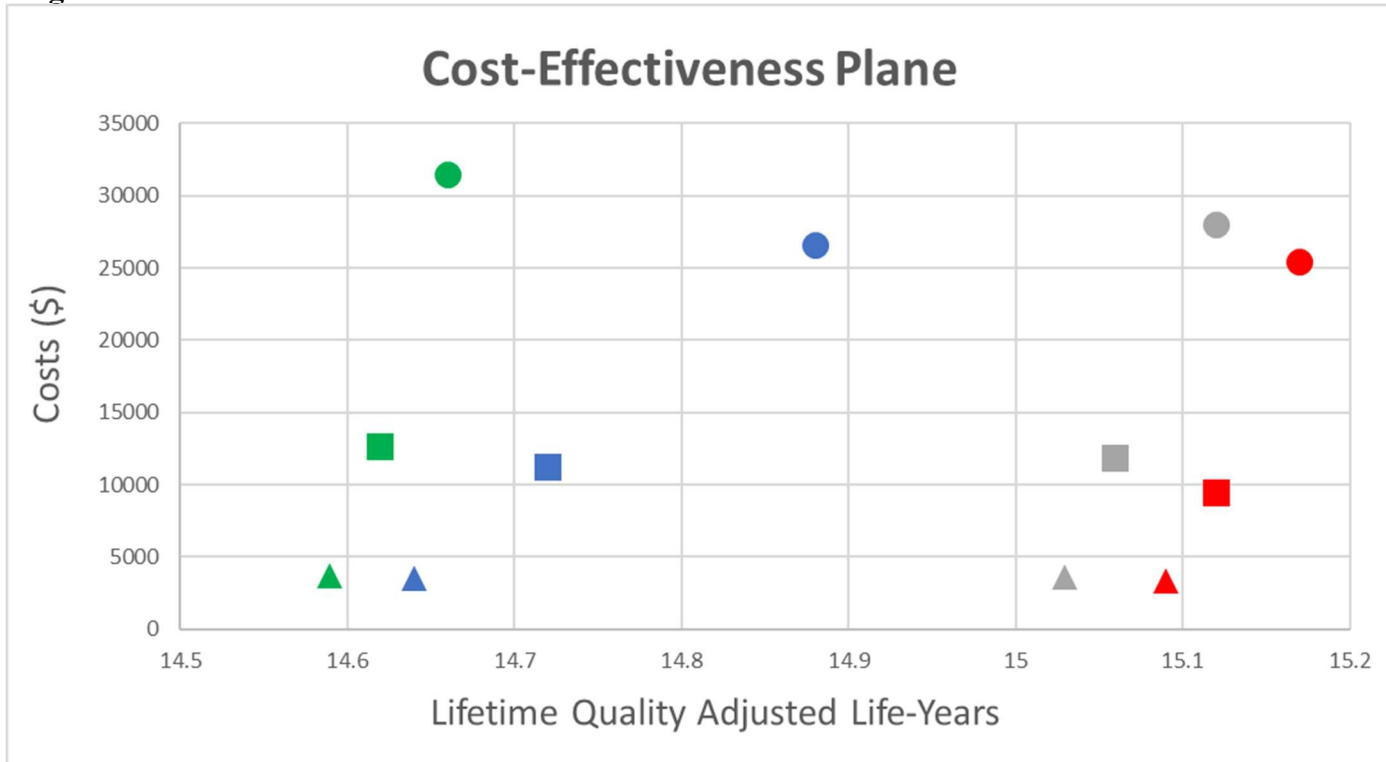
eTable 4: One-way Sensitivity Analysis 2-Joint Contracture From Societal Perspective of the Preferred Treatment Strategy†

	MCP Joint Low Severity Contracture						MCP Joint High Severity Contracture						PIP Joint Low Severity Contracture						PIP Joint High Severity Contracture						
	Low			High			Low			High			Low			High			Low			High			
Willingness to Pay (1000's \$)	50	100	150	50	100	150	50	100	150	50	100	150	50	100	150	50	100	150	50	100	150	50	100	150	
Age	26	26	11	26	11	27	26	27	27	26	27	27	26	26	27	26	27	27	26	26	26	26	26	22	27
Probability of Death	26	26	11	26	26	11	26	27	27	26	27	27	26	26	27	26	26	27	26	26	26	26	26	26	26
Transition Probabilities																									
CCH Success	26	26	11	26	26	11	26	27	27	26	27	27	26	26	27	26	26	27	26	26	26	26	26	26	26
CCH Recurrence	26	26	11	26	26	11	26	27	27	26	27	27	26	26	27	26	26	27	26	26	26	26	26	26	26
PNA Success	26	26	27	26	26	26	24	27	27	26	27	27	26	26	27	26	26	24	26	26	26	26	26	26	26
PNA Recurrence	26	26	11	26	26	27	26	27	27	24	27	27	26	26	24	26	26	27	26	26	26	26	26	26	26
LF Success	26	26	26	26	11	27	26	27	27	27	27	27	26	26	26	26	24	27	26	26	26	26	26	26	27
LF Recurrence	26	11	27	26	26	26	27	27	27	26	27	27	26	26	27	26	26	26	26	26	26	26	26	26	26
Direct Cost																									
CCH clinic visit	26	26	11	26	26	11	26	27	27	26	27	27	26	26	27	26	26	27	26	26	26	26	26	26	26
CCH medication	26	26	11	26	26	11	26	27	27	26	27	27	26	26	27	26	26	27	26	26	26	26	26	26	26
CCH manipulation visit	26	26	11	26	26	11	26	27	27	26	27	27	26	26	27	26	26	27	26	26	26	26	26	26	26
CCH hand therapy	26	26	11	26	26	11	26	27	27	26	27	27	26	26	27	26	26	27	26	26	26	26	26	26	26
PNA procedure	26	26	11	26	26	11	26	27	27	26	27	27	26	26	27	26	26	27	26	26	26	26	26	26	26
PNA hand therapy	26	26	11	26	26	11	26	27	27	26	27	27	26	26	27	26	26	27	26	26	26	26	26	26	26
LF procedure	26	26	11	26	26	11	26	27	27	26	27	27	26	26	27	26	26	27	26	26	26	26	26	26	26
LF anesthesia	26	26	11	26	26	11	26	27	27	26	27	27	26	26	27	26	26	27	26	26	26	26	26	26	26
LF facility fee	26	26	11	26	26	11	26	27	27	26	27	27	26	26	27	26	26	27	26	26	26	26	26	26	26
LF hand therapy	26	26	11	26	26	11	26	27	27	26	27	27	26	26	27	26	26	27	26	26	26	26	26	26	26
Indirect Cost																									
CCH days off work	26	26	11	26	26	11	26	27	27	26	27	27	26	26	27	26	26	27	26	26	26	26	26	26	26
PNA days off work	26	26	11	26	26	27	26	27	27	27	27	27	26	26	27	26	27	27	26	26	26	26	26	26	22
LF days off work	26	11	27	26	26	26	27	27	27	26	27	27	26	27	27	26	26	26	26	26	27	26	26	26	26
Complication Cost																									
Tendon injury	26	26	11	26	26	11	26	27	27	26	27	27	26	26	27	26	26	27	26	26	26	26	26	26	26
Admission	26	26	11	26	26	11	26	27	27	26	27	27	26	26	27	26	26	27	26	26	26	26	26	26	26
Medication allergy	26	26	11	26	26	11	26	27	27	26	27	27	26	26	27	26	26	27	26	26	26	26	26	26	26

Skin tear	26	26	11	26	26	11	26	27	27	26	27	27	26	26	27	26	26	27	26	26	26	26	26	26
Infection	26	26	11	26	26	11	26	27	27	26	27	27	26	26	27	26	26	27	26	26	26	26	26	26
CRPS	26	26	11	26	26	11	26	27	27	26	27	27	26	26	27	26	26	27	26	26	26	26	26	26
Nerve injury	26	26	11	26	26	11	26	27	27	26	27	27	26	26	27	26	26	27	26	26	26	26	26	26
Artery injury	26	26	11	26	26	11	26	27	27	26	27	27	26	26	27	26	26	27	26	26	26	26	26	26
Hematoma	26	26	11	26	26	11	26	27	27	26	27	27	26	26	27	26	26	27	26	26	26	26	26	26
Complication Rate																								
Tendon (CCH)	26	26	11	26	26	11	26	27	27	26	27	27	26	26	27	26	26	27	26	26	26	26	26	26
Admission (CCH)	26	26	11	26	26	11	26	27	27	26	27	27	26	26	27	26	26	27	26	26	26	26	26	26
Allergy (CCH)	26	26	11	26	26	11	26	27	27	26	27	27	26	26	27	26	26	27	26	26	26	26	26	26
Skin tear (CCH)	26	26	11	26	26	11	26	27	27	26	27	27	26	26	27	26	26	27	26	26	26	26	26	26
Tendon (PNA)	26	26	11	26	26	11	26	27	27	26	27	27	26	26	27	26	26	27	26	26	26	26	26	26
Infection (PNA)	26	26	11	26	26	11	26	27	27	26	27	27	26	26	27	26	26	27	26	26	26	26	26	26
CRPS (PNA)	26	26	11	26	26	11	26	27	27	26	27	27	26	26	27	26	26	27	26	26	26	26	26	26
Nerve injury (PNA)	26	26	11	26	26	11	26	27	27	26	27	27	26	26	27	26	26	27	26	26	26	26	26	26
Artery injury (PNA)	26	26	11	26	26	11	26	27	27	26	27	27	26	26	27	26	26	27	26	26	26	26	26	26
Tendon (LF)	26	26	11	26	26	11	26	27	27	26	27	27	26	26	27	26	26	27	26	26	26	26	26	26
Admission (LF)	26	26	11	26	26	11	26	27	27	26	27	27	26	26	27	26	26	27	26	26	26	26	26	26
Infection (LF)	26	26	11	26	26	11	26	27	27	26	27	27	26	26	27	26	26	27	26	26	26	26	26	26
Nerve injury (LF)	26	26	11	26	26	11	26	27	27	26	27	27	26	26	27	26	26	27	26	26	26	26	26	26
Artery injury (LF)	26	26	11	26	26	11	26	27	27	26	27	27	26	26	27	26	26	27	26	26	26	26	26	26
Hematoma (LF)	26	26	11	26	26	11	26	27	27	26	27	27	26	26	27	26	26	27	26	26	26	26	26	26
Utility (Disease state)	26	27	27	26	26	26	27	27	27	26	27	27	26	27	27	26	26	26	26	26	27	26	26	26

† Treatment Types: 11 (PNA→PNA→LF), 22 (LF→PNA→PNA), 26 (PNA→PNA→PNA), 24 (PNA→LF→LF), 27 (LF→LF→LF)

eFigure 1. Cost-effectiveness Plane

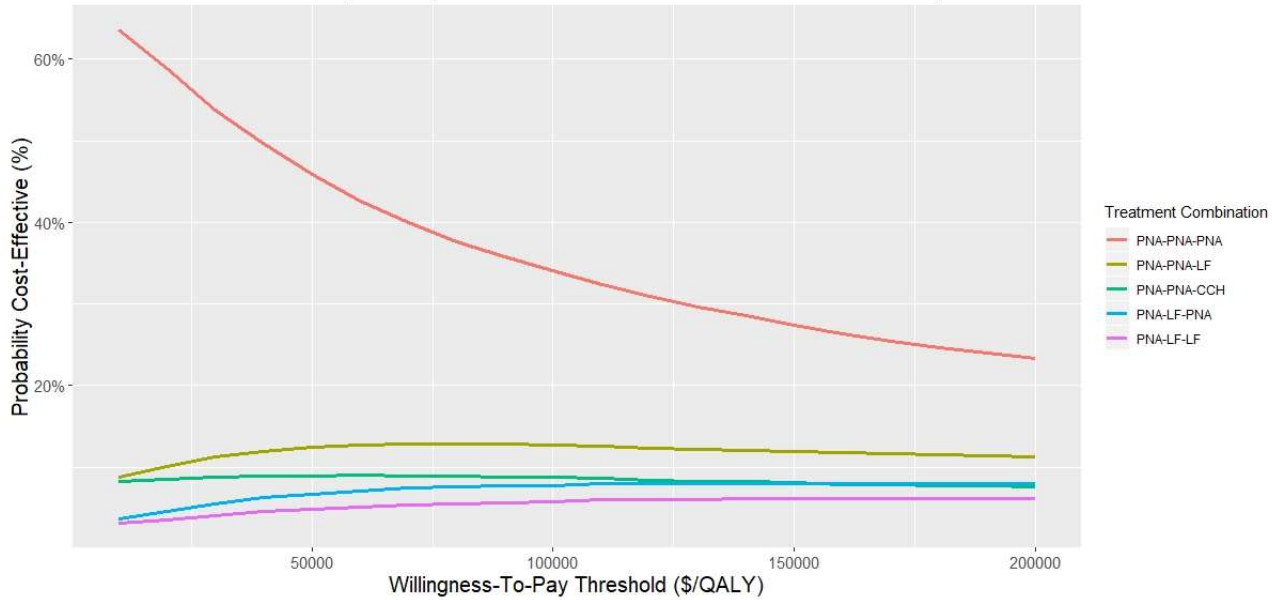


Triangle: PNA→PNA→PNA; Square: PNA→PNA→LF; Circle: LF→LF→LF

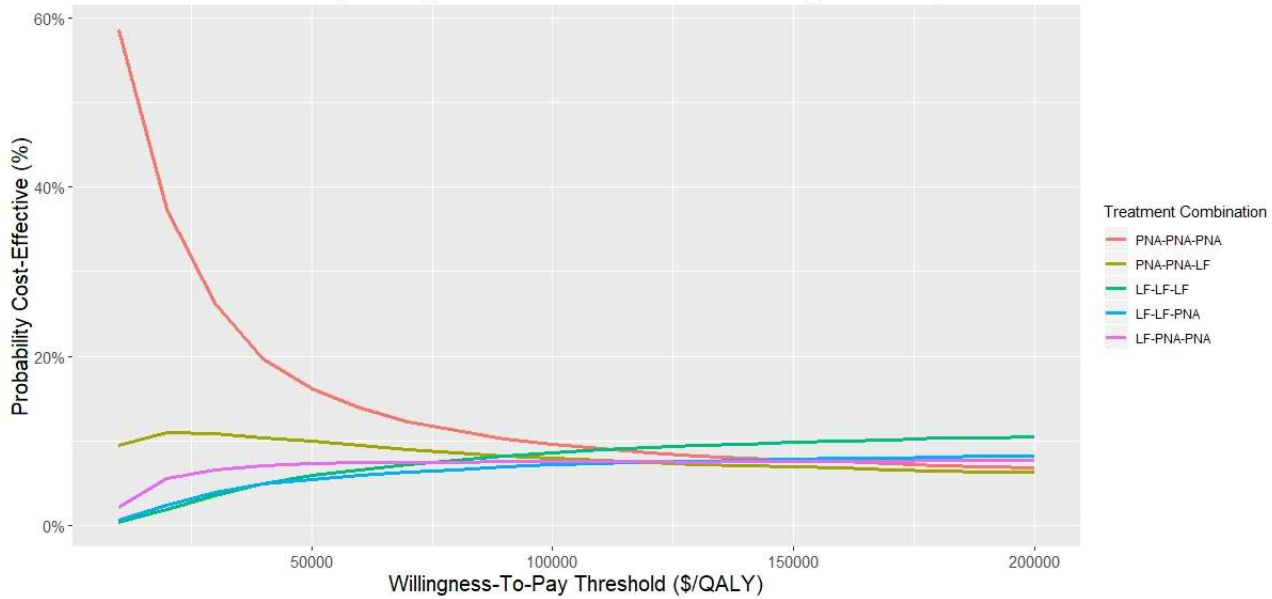
Red: MCP joint low severity contracture; Blue: MCP joint high severity contracture; Gray: PIP joint low severity contracture; Green: PIP joint high severity contracture

eFigure 2. Two MCP Joint Cost-effectiveness Acceptability Curve

Cost-Effectiveness Acceptability Curve for Two MCP Joint Low Severity Contractures

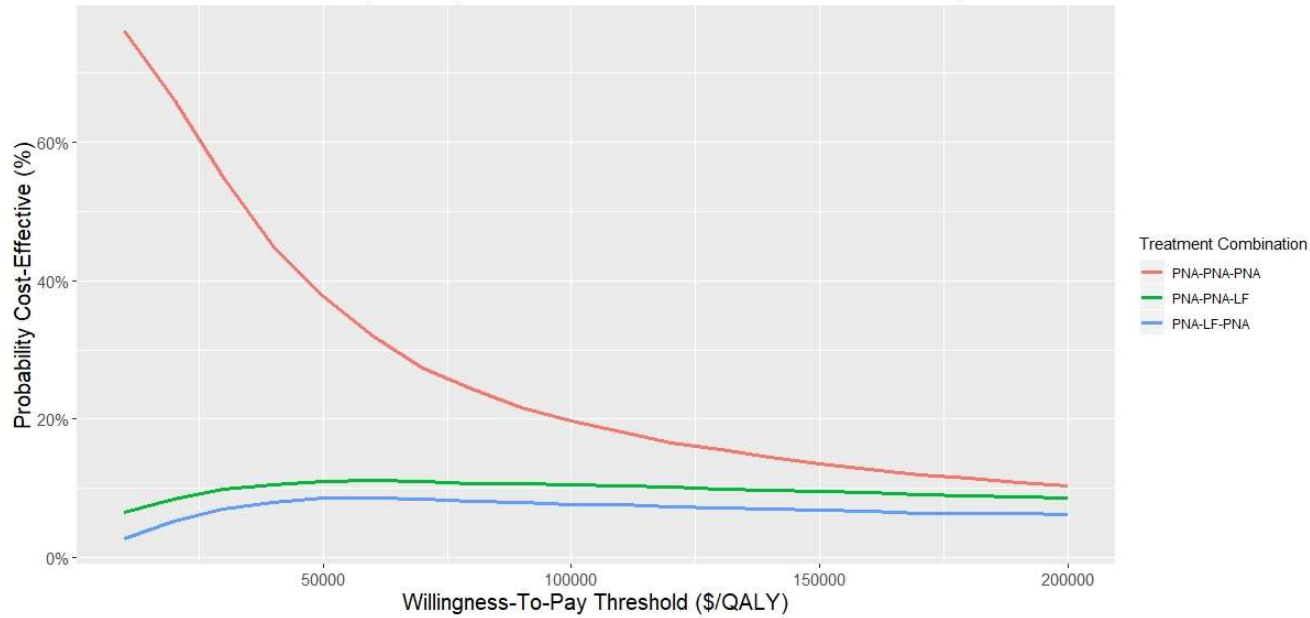


Cost-Effectiveness Acceptability Curve for Two MCP Joint High Severity Contractures



eFigure 3. Two PIP Joint Cost-effectiveness Acceptability Curve

Cost-Effectiveness Acceptability Curve for Two PIP Joint Low Severity Contractures



Cost-Effectiveness Acceptability Curve for Two PIP Joint High Severity Contractures

